

REMARKS

Applicant respectfully requests reconsideration of the present application based on the foregoing amendment and the following remarks. In the Office Action, an objection to claim 25 identifies an improper antecedent and claims 1-12, 20-29 and 42-45 are rejected under 35 U.S.C. §103 as allegedly unpatentable over U.S. Patent Application No. 2002/0191543 by Buskirk et al. ("Buskirk") in view of U.S. Patent No. 6,957,281 to Mann et al. ("Mann"). The Office Action identifies claims 13-19 and 30-41 as including allowable subject matter.

Objections to the Claims

The Office Action objects to claim 25 because of a lack of proper antecedent basis for "tag checker." As suggested in the Office Action, Applicant has amended claim 25 to depend from claim 23 in which "tag checker" is first recited. Consequently, Applicant respectfully requests withdrawal of the objection to claim 25.

Claim Rejections under 35 U.S.C. §103

Applicant respectfully traverses the §103 rejections of claims 1-12, 20-29 and 42-45 for at least the reasons that no combination of the references teaches all elements of the claims and because there would have been no motivation to combine the references at the time of invention.

Buskirk and Mann do not teach all elements of the claims. A §103(a), or obviousness, rejection is proper only when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains." 35 U.S.C. §103(a). As acknowledged in the Office Action, Buskirk is silent regarding combining a flow ID and a priority ID to create a queue ID. However, Buskirk is also deficient with regard to teachings related to receiving data at a plurality of ports and extracting a plurality of tags and a logical port identifier from a first portion of a data packet.

Buskirk does not teach a method for classifying that requires receiving a data packet at one of a plurality of ports coupled to a heterogeneous network. Buskirk teaches only the receipt of an input consisting of packet-over-SONET frames, stating that "incoming POS OC-192 frames 210 originate at an OC-192 framer and arrive at the line card-0204 at the ingress interface 212." Buskirk, paras. 41-42. Buskirk includes no teaching or suggestion of a plurality of ports coupled to a heterogeneous network.

Nor does Buskirk teach a method of classifying data that includes extracting a logical port identifier (ID) from a first portion of a data packet received at one of a plurality of ports.

As cited, Buskirk states:

The parsing engine 312 performs layer classification and tagging via a search engine. The various functions of the parsing engine 312 includes parsing the frames processed by the pre-processor and generating search keys from data anywhere within the frame. The protocol layer code is used as a start vector into an instruction memory, which contains instructions for the parsing engine 312 and pointers to access selected words in a frame buffer. The parsing engine 312 receives the instruction and performs the functions selected by the corresponding instruction operational code. The results are used with an extractor that builds search keys which can be applied against a CAM (or indexed directly to a memory) to generate "search results" that contain the frame classification.

Buskirk, para. 49. It is apparent from this passage cited in the Office Action that Buskirk is concerned with generating search keys and that the search is not limited to any specific portion of a data packet ("*generating search keys from data anywhere within the frame*"). Nothing in this passage teaches or suggests extracting a logical port identifier from a first portion of a data packet and such teaching cannot be found anywhere in Buskirk.

The Office Action acknowledges that Buskirk does not teach or suggest combining a flow ID with a priority ID to create a queue ID. Notably, the Office Action also proposes the same passage as supporting the assertion that Buskirk teaches determining both a flow ID and a priority ID. Applicant respectfully submits that this position taken in the Office Action is internally inconsistent. Buskirk teaches that "priority fields in a header would also be a logical place to classify flows..." Thus, the priority fields are introduced in relation to classification of flows and potentially the priority fields could be associated with a flow ID. Buskirk does not teach, contemplate or suggest that a priority ID distinct and separate from a flow ID can be determined. Applicant submits that a complete reading of Buskirk would not have motivated a skilled artisan to combine a flow ID with a priority ID when a priority ID is not taught and any priority in Buskirk is expressly associated with a flow ID.

Next, the Office Action suggests motivation could have existed for combining Mann with Buskirk in a manner that would have rendered the presently claimed invention obvious. Applicant disagrees. Mann is non-analogous art. Mann is concerned with efficiency of a destination server to classify packets received at a network interface from a large number of remote network nodes. Mann at col. 1, lines 36-43. Mann is specifically concerned with homogeneous network traffic received at a single network interface, specifically, an Ethernet or Gigabit Ethernet interface. The objective of Mann is to relieve a server of the burden of

sorting through packets from the multitude of nodes. See Mann, col. 1, lines 45-63 and col. 3, lines 21-31. Mann teaches methods that merely presorts packets at a single network port.

Even if motivation could have existed for combining Mann and Buskirk, Mann fails to cure the deficiencies of Buskirk. Specifically, the Office Action equates Mann's "packet bundle descriptor" with the required "queue ID" and therefore considers a packet bundle as teaching a queue. However, Mann explicitly teaches that its packet bundles can be stored in queues. Mann col. 4, lines 14-17. Thus, Mann teaches packet bundles and queues as distinctly different objects. Moreover, Mann refers to queues directly but does not teach queue identifiers or queue descriptors. Mann explicitly uses the packet bundle descriptor to describe the organization of the underlying packet bundle, not to describe or identify a queue. Mann, col. 3, lines 56-61. Therefore, the characterization of Mann's packet bundle descriptor as a queue ID is improper and the §103 rejection of claims 1 and 22 should be withdrawn.

Dependent claims 2-12 and 20-21 are allowable for at least the reasons that claim 1 is allowable. Additionally, the rejections of claims 2-12 and 20-21 are improper because the art of record does not teach the elements of the claims and because no motivation could have existed to combine the references.

Regarding claims 2, 3, 23 and 24, nothing in Buskirk teaches or suggests checking whether a data type of a data packet matches a port type of one of a plurality of ports and, furthermore, ports and port types are not even mentioned tangentially in Buskirk (or in Mann). Additionally, Applicant notes the use of the term "logical flow" in Buskirk, but submits that such use is of no consequence because a logical flow is not the equivalent of a logical port. Therefore, in addition to the reasons provided, the rejection of claim 9 is improper because Buskirk is silent regarding any type of port, whether physical or logical.

For at least the reasons described above, Applicant respectfully requests withdrawal of the §103 rejections in the Application.

Allowable Subject Matter


Applicant thanks the Examiner for acknowledging the allowable subject matter in the Application. Because Applicant believes independent claims 1 and 22 to be allowable, Applicant declines the opportunity to amend claims 13-19 and 30-41 at this time.

CONCLUSION

All objections and rejections having been addressed, and in view of the foregoing, the claims are believed to be in form for allowance, and such action is hereby solicited. The Examiner is kindly requested to contact the undersigned at the telephone number listed below if any points remain in issue which may best be resolved through a personal or telephone interview.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,
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